

REMARKS

Reexamination and reconsideration of the pending claims are respectfully requested. Claims 1-13 remain pending in this application, wherein claims 1-5, 7, 8, 10, and 13 are hereby amended.

Applicant's counsel wishes to thank Examiners Zhao and Wu for the courtesies extended during the personal interview on September 17, 2009. The following records the substance of the interview.

The amendments to the claims are supported by at least paragraph [0023] on page 15 and [0033] bridging pages 20 and 21 of Applicant's disclosure as filed and Figures 3-5 of Applicant's drawings.

As discussed during the interview, the claimed invention relates to a system and method for updating search data in a navigation system. Substance data and search data constitute the search data to be updated. The search data, which includes substance data, are data used to determine a specific geographical point based on a search rather than by identifying the desired geographic point on a map. For example, the substance data may include name information, telephone information, and street address which are searched to identify the geographical point. The substance data can be facility information.

The update data provided by the claimed invention is not transmitted in a format that includes a search tree with the substance data. An index is provided for searching in a non-tree based index search.

In the Office Action, claims 1, 2, 3, and 13 are objected to because of informalities.¹ Applicant submits that the amendments to the claims address the informalities identified in the Office Action.

Claims 1 and 2 are additionally objected to as reciting methods but being unclear as to how these methods are executed or implemented.² Claims 1 and 2 have been amended to explicitly recite the server and control device on which the claimed method are performed. Applicant submits that the amendments to the claims address the additional informalities identified in the Office Action.

In the Office Action, claims 1 and 2 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Application Publication No. 2002/0013658 to Tanaka et al. ("Tanaka"). Claims 3-5, 7, and 9-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka, in view of U.S. Application Publication No. 2003/0028316 to Miyahara ("Miyahara"). Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka, in view of Miyahara, and further in view of U.S. Application Publication No. 2003/0140309 to Saito et al. ("Saito"). Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka, in view of Miyahara, and further in view of U.S.

¹ Office Action pages 6-8, ¶4.

² Office Action page 9, ¶5.

Application Publication No. 2003/0231163 to Hanon et al. ("Hanon"). These grounds of rejection are respectfully traversed.

Independent claim 1 recites an update method performed by a server and a control device of a navigation apparatus including the following:

(1) providing, by the server, a set of second substance data, which has an index as a search key wherein the second substance data does not include data specified based upon search tree data, separately from the data constituted with the search tree data and the plurality of sets of first substance data specified based upon the search tree data, and not updating a set of first substance data in the search data and not adding a set of first substance data to the search data; and

(2) executing, by the control device, a substance data search by using a tree search based on the search tree data of the search data prior to an update and an index search using the index of the provided set of second substance data.

The Office Action cites Tanaka as disclosing "providing a set of substance data, which has search-related information and is different from data specified based upon the search tree data, separately from the data constituted with the search tree data." In particular, the Office Action relies on paragraph [0040], of Tanaka which states "The control unit 8 executes the alphabet-based

search...and searches for the target location from the input location name at step 402 by using both the original (normal) search list and the new search list..."

Tanaka states the following:

The control unit 8 then forms a new search list at step 302 to add the name of the memory location separately from the original search list. Specifically, as shown in FIG. 7B, a new search tree is formed in the new search list in addition to the original search tree shown in FIG. 7A, when "A RA KI SA N TA KU" in Japanese (Mr. Araki's home in English) is registered as the name of the memory location.³

Figures 7A and 7B of Tanaka, reproduced below, show that both the original search (shown in Figure 7A) the new search (shown in Figure 7B) are tree searches.

FIG. 7A

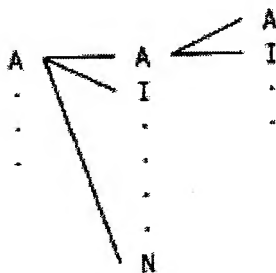
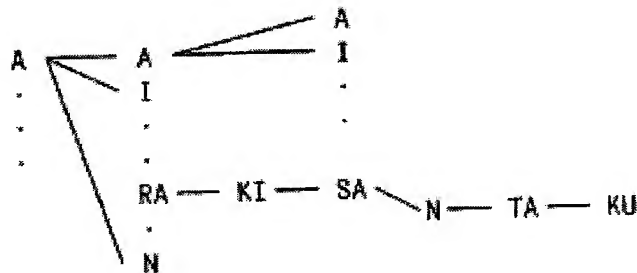


FIG. 7B



In other words, Tanaka explicitly requires that the new search list is based on a "new search tree." By contrast, claim 1 requires that control device execute a substance data search using both the search tree data of the search

³ Tanaka [paragraph [0039] (emphases added).

data prior to an update, and an index search using the index of the provided set of second substance data. Claim 1 additionally requires that the second substance data does not include data specified based upon search tree data. During the interview, the Examiner agreed that Tanaka did not show the claimed index, but showed only update data supporting tree based searches.

Applicant submits that for at least the reasons given above Tanaka does not anticipate claim 1.

Claim 3 recites a search data update system having a navigation apparatus that includes the following features:

(1) a search data providing apparatus that provides update data to be used to update the search data to the navigation apparatus, wherein the update data are provided, in units of individual sets of second substance data, wherein the second substance data include attached thereto an index as a search key to be used in a search in correspondence to each set of second substance data, and do not include search tree data;

(2) a search device that executes a substance data search by using the search tree data of the first search data stored in the storage device to execute a tree search and using the index attached to each set of second substance data of the update data stored in the storage device to conduct an index search, in correspondence to input of a character for search.

Applicant submits that the above identified features required by claim 3 are substantially similar to the features required by claim 1 and discussed above. Accordingly, Tanaka fails to anticipate claim 3 for reasons similar to those discussed above for claim 1.

The Office Action cites Miyahara as disclosing that "update data are provided in units of individual sets of substance data" to cure deficiencies of Tanaka in teaching or suggesting the features of claim 3.⁴ Applicant submits that Miyahara does not cure the deficiency of Tanaka regarding the features of claims 1 and 3 discussed above, and that accordingly claims 1 and 3 are patentably distinguishable over the combination of Tanaka and Miyahara.

The Office Action cites Saito and Hanon for disclosure of features explicitly recited in the dependent claims. Saito and Hanon do not cure the deficiencies in Tanaka and Miyahara discussed above regarding claim 1 and 3. Accordingly, Applicant respectfully submits that claims 1 and 3 are patentably distinguishable over the combination of Tanaka, Miyahara, Saito, and Hanon.

Independent claim 13 recites a search data update system that includes a navigation apparatus requiring the following:

(1) an update data obtaining device to obtain update data that are used to update or add to the search data, wherein the update data does not include data

⁴ Page 15, final paragraph.

specified based upon search tree data, and have an index as a search key in each set of second substance data;

(2) a search device that executes a substance data search by using both the first search data stored in the first storage unit and the update data stored in the second storage unit.

The above identified features recited by claim 13 are similar to the features required by claims 1 and 3 and discussed above. Applicant submits that claim 13 is patentably distinguishable over the combination of Tanaka, Miyahara, Saito, and Hanon for reasons similar to those discussed above for claims 1 and 3.

The dependent claims each depend either directly or indirectly claim 1 or claim 3. Applicant respectfully submits that each of the dependent claims is patentably distinguishable over the combination of Tanaka, Miyahara, Saito, and Hanon for reasons similar to those discussed above for claims 1 and 3 at least by virtue of the respective dependencies of the claims.

Further, claim 7 recites, "once a number of sets of update data having been obtained becomes equal to or greater than a predetermined value, the update data obtaining device in the navigation apparatus obtains a new version of first search data."

The Office Action acknowledges that Tanaka does not disclose the above identified feature recited by claim 7, and relies instead on Miyahara for disclosing this feature, citing in particular paragraphs [0096]-[0098].

Paragraphs [0096]-[0098] relate to header data transmitted from a server that includes a set of date codes indicative of versions of update data. As shown in Figure 9, reproduced below, the version information uses date information as the version number. Accordingly, the header disclosed in Miyahara can accommodate only one update version per day.

ITEM	OFFSET	SIZE	bit	DESCRIPTION
1	0	2		DATA VERSION
			15-9	YEAR (0-)
			8-5	MONTH (0-12)
			4-0	DATE (1-31)
2	2	1		FORMAT VERSION
3	3	1		TYPE OF DATA
4	4	1		NUMBER OF LAYERS
5	5	1		A SERIES OF BITS OF LAYER INFORMATION
6				A SERIES OF BITS OF BLOCK INFORMATION

FIG. 9

Miyahara states, "In the header shown in Figure 9, a data version is described in which more than one-up versions per day will not be performed."⁵ Miyahara merely discloses that a single version of update data that can be made available at the server on a single day, and does not relate to "a number of sets of update data having been obtained becomes equal to or greater than a predetermined value" as recited by claim 7. Further, Miyahara is silent regarding taking action such as obtaining a new version of first search data.

⁵ Paragraph [0097], lines 2-5.

By contrast, claim 7 requires that the “update data obtaining device in the navigation apparatus obtains a new version new version of first search data” when “a number of sets of update data having been obtained [by the update data obtaining device] becomes equal to or greater than a predetermined value.” The combination of Tanaka and Miyahara does not disclose the updating concept of obtaining new first search data based on the number of sets of update data having been obtained, as required by claim 7.

Accordingly, Applicant submits that the combination of Tanaka and Miyahara does not teach or suggest the above identified features of claim 7, and that claim 7 is patentably distinguishable over the combination of Tanaka and Miyahara for at least this additional reason.

With regard to claim 6, claim 6 recites, “once a number of sets of update data having been obtained becomes equal to or greater than a predetermined value, the update data obtaining device in the navigation apparatus provides an audio output or a display output.” Applicant submits that claim Tanaka and Miyahara do not teach or suggest the above feature of claim 6 for reasons similar to those discussed above regarding claim 7. The Office Action cites Saito for disclosure related to providing an audio output.⁶ In particular, the Office Action relies on paragraphs [0203]-[0206] of Saito.

⁶ Page 21, lines 1-2.

Saito discloses that an agent program that notifies the user of a need for a database update using the criteria shown in Figure 29, reproduced below.⁷

FIG. 29

<input type="checkbox"/> Any mail group in which <input type="text"/> URLs have been viewed is judged to be in need of updating.
<input type="checkbox"/> Any mail group in which the recommended URLs have been exhausted is judged to be in need of updating.
<input type="checkbox"/> Any mail group whose most recent update was <input type="text"/> days ago is judged to be in need of updating.
<input type="checkbox"/> Any mail group whose keywords have been changed based on the analysis of a newly received mail is judged to be in need of updating.

Saito does disclose that that the agent program determines the need for an update “once a number of sets of update data having been obtained becomes equal to or greater than a predetermined value” as required by claim 6, and accordingly Saito does not cure the deficiencies in the teachings of Tanaka and Miyahara. Applicant submits that claim 6 is patentably distinguishable over the combination of Tanaka, Miyahara, and Saito for at least this additional reason.

Claim 8 requires a search device having the following features:

“compares the character with the index, which is contained in each of a plurality of sets of update data stored in the storage device” and

“attaches a non-target index to each set of update data determined not to be a search target based upon comparison results.”

⁷ Paragraph [0203]

The Office Action acknowledges that Tanaka and Miyahara as applied to claim 5 do not teach or suggest the above-identified feature recited in claim 8.⁸ As discussed above, Tanaka and Miyahara does not disclose the search index required by claim 8. Further, Tanaka and Miyahara are silent regarding attaching a non-target index to each set of update data determined not to be a search target as recited in claim 8.

The Office Action relies on Hanon for disclosure related to the features recited in claim 8, and in particular, the Office Action cites paragraphs [0106] and [0109] of Hanon for disclosure related to the features recited in claim 8.

Paragraph [0106] of Hanon discloses that a “navigation by address feature allows the user to specify a destination using an address.” Paragraph [0109] states that, “the user can enter a state, city or street name using the preset controls to enter letters of the address entry.” Hanon is silent regarding attaching “a non-target index to each set of update data determined not to be a search target based upon comparison results,” as required by claim 8. Accordingly, Hanon does not cure the deficiencies in Tanaka and Miyahara discussed above. Applicant submits that claim 8 is patentably distinguishable over Tanaka, Miyahara, and Hanon for at least this reason.


⁸ Pages 21-22.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #029267.58056US).

Respectfully submitted,

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